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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,203	11/03/2003	Robert Sesek	10014228-1	4187
22879 7590 04/06/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER BONURA, TIMOTHY M	
			ART UNIT 2114	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/700,203		SESEK ET AL.	
	Examiner		Art Unit	
	Tim Bonura		2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3,6-8,12,14-22 and 25-30 is/are rejected.
- 7) ☐ Claim(s) 4,5,9-11,13,23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/03/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/03/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- **Claims 1-3, 6-8, 12, 14-22, 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Smelser, U.S. Patent Number 5,754,753**

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-8, 12, 14-22, 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Smelser, U.S. Patent Number 5,754,753.
3. Regarding claim 1:
 - a. Regarding the limitation of “an array of magnetic memory cells,” Smelser discloses a system with an array of memory cells. (Lines 3335 of Column 2).
 - b. Regarding the limitation of “a control circuit configured to receive data, sort the received data to obtain unchanged data and ECC encoded data, and store the unchanged data and the ECC encoded data in the array of magnetic memory cells,” Smelser discloses a system that receives data (Lines 34 of Column 2) of data and ECC correction codes for the data (Lines 34-36 of Column 2) and stores it in the memory array.
4. Regarding claim 2, Smelser discloses a system with the ability to arrange memory arrays into cells with defects and ones without. (Lines 4-11 of Column 3).
5. Regarding claim 3, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3).

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6. Regarding claim 6, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

7. Regarding claim 7, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

8. Regarding claim 8, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

9. Regarding claim 12, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

10. Regarding claim 14, Smelser disclose a system that uses Reed Solomon codes. (Lines 31-41 of Column 17).

11. Regarding claim 15, Smelser disclose a system that uses BCH codes. (Lines 33-34 of Column 3).

12. Regarding claim 16:

c. Regarding the limitation of "an array of magnetic memory cells," Smelser discloses a system with an array of memory cells. (Lines 3335 of Column 2).

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- d. Regarding the limitation of “a control circuit configured to divide the array of magnetic memory cells into zero fault sections and usable fault sections, receive data, sort the received data to zero fault sections and usable fault sections based one predetermined criteria,” Smelser discloses a system that receives data (Lines 34 of Column 2) of data and ECC correction codes for the data (Lines 34-36 of Column 2) and stores it in the memory array. Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3).
13. Regarding claim 17, Smelser discloses a system with means to sort data based on access time, likely hood of being used and fault probability. (Lines 1-17 of Column 6).
14. Regarding claim 18, Smelser discloses a system with means to sort data based on access time, likely hood of being used and fault probability. (Lines 1-17 of Column 6).
15. Regarding claim 19, Smelser discloses a system with means to sort data based on access time, likely hood of being used and fault probability. (Lines 1-17 of Column 6).
16. Regarding claim 20, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).
17. Regarding claim 21, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).
18. Regarding claim 22, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3).

Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

19. Regarding claim 25:

e. Regarding the limitation of "means for an array of magnetic memory cells," Smelser discloses a system with an array of memory cells. (Lines 3335 of Column 2).

f. Regarding the limitation of "means for dividing the array of magnetic memory cells into groups of sections, means for providing unchanged data and ECC encoded data for storage in the group sections" Smelser discloses a system that receives data (Lines 34 of Column 2) of data and ECC correction codes for the data (Lines 34-36 of Column 2) and stores it in the memory array. Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3).

20. Regarding claim 26, Smelser discloses a system with the ability to arrange memory arrays into cells with defects and ones without. (Lines 4-11 of Column 3). Smelser also discloses means for calculating fault for a section of memory. (Lines 19-26 of Column 3).

21. Regarding claim 27, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3).

22. Regarding claim 28:

g. Regarding the limitation of "selecting received data for encoding; encoding the selected data with an ECC scheme; storing the ECC encoded data in the array of magnetic memory cells; storing some received data as received in the array of magnetic memory cells," Smelser discloses a system with an array of memory cells. (Lines 3335

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of Column 2). Smelser discloses a system that receives data (Lines 34 of Column 2) of data and ECC correction codes for the data (Lines 34-36 of Column 2) and stores it in the memory array.

23. Regarding claim 29, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3). Smelser disclose a system that uses BCH codes. (Lines 33-34 of Column 3).

24. Regarding claim 30, Smelser discloses a system wherein the system can arrange memory cells into ones with know defects and one without defects. (Lines 4-11 of Column 3). Smelser also discloses a system with ECC data is used in the in faulty memory to make it usable for data. (Lines 33-38 of Column 3). Smelser disclose a system that uses BCH codes. (Lines 33-34 of Column 3). Smelser disclose a system that uses BCH codes. (Lines 33-34 of Column 3).

Specification

25. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Allowable Subject Matter

26. Claims 4, 5, 9-11, 13, and 23-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**.

- o The examiner can normally be reached on **Mon-Fri: 8:30-5:00**.
- o The examiner can be reached at: **571-272-3654**.

28. If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Scott Baderman**.

- o The supervisor can be reached on **571-272-3644**.

29. The fax phone numbers for the organization where this application or proceeding is assigned are:

- o **703-872-9306 for all patent related correspondence by FAX.**

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

31. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **571-272-2100**.

32. Responses should be mailed to:

- o **Commissioner of Patents and Trademarks**
P.O. Box 1450
Alexandria, VA 22313-1450

tmb
April 2, 2007


SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER